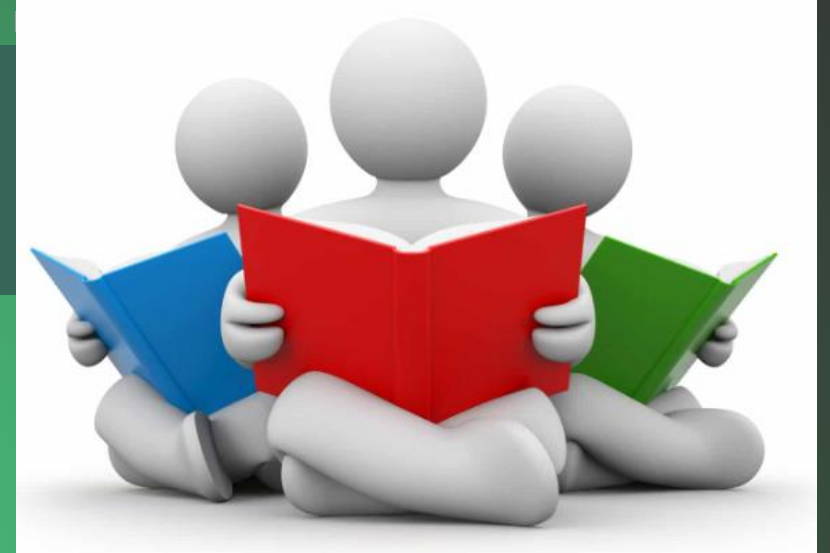


PREVENTIVE ORTHODONTICS



ILOS

- PREVENTIVE ORTHODONTICS, DEFINITION & AIM.
- PROCEDURES UNDERTAKEN IN PREVENTIVE ORTHODONTICS.
- BENEFITS & DRAWBACKS OF PREVENTIVE ORTHODONTICS.
- SPACE MAINTAINERS AND THEIR IDEAL REQUIREMENTS.



- SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS FIRST MOLAR & SEQUELAE .



- SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS 2ND MOLAR & SEQUELAE
- MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS INCISORS.
- SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS CANINES SPACE.

PREVENTIVE ORTHODONTICS ARE:

Actions taken to preserve the integrity of what appears normal at a specific time.

Aim :

To prevent development of malocclusion



Is that part of orthodontic practice which is concerned with

1. The patient's and parents' education.
2. Supervision of growth and development of dentition and the Cranio-facial structures.
3. The diagnostic procedures held to prevent the onset of malocclusion.



SOME PROCEDURES UNDERTAKEN IN PREVENTIVE ORTHODONTICS:

1. Caries control.



2. Checkup of oral habits and incorporation of habit breaking appliances.

3. Extraction of supernumerary tooth or mesiodens.





5. Management of abnormal frenal attachments.

6. Care of deciduous dentition & management of tooth shedding time table.

7. Space maintenance.



Upper Teeth	Erupt	Shed
Central incisor	8-12 mos.	6-7 yrs.
Lateral incisor	9-13 mos.	7-8 yrs.
Canine (cuspid)	16-22 mos.	10-12 yrs.
First molar	13-19 mos.	9-11 yrs.
Second molar	25-33 mos.	10-12 yrs.

Lower Teeth	Erupt	Shed
Second molar	23-31 mos.	10-12 yrs.
First molar	14-18 mos.	9-11 yrs.
Canine (cuspid)	17-23 mos.	9-12 yrs.
Lateral incisor	10-16 mos.	7-8 yrs.
Central incisor	6-10 mos.	6-7 yrs.

PREVENTIVE ORTHODONTICS HAS THE FOLLOWING BENEFITS:

1. Better use of growth to aid in treatment.
2. Pathologies such as root resorption could be avoided.
3. Possibility to avoid psychosocial problems associated with malocclusion.



4. Improved esthetics due to early prevention of problems.

5. Intervening in deciduous dentition simplifies treatment in the permanent dentition.

6. Better stability of treatment is anticipated.



DRAWBACKS OF PREVENTIVE ORTHODONTICS

- Early initiation of treatment prolongs treatment duration.
- Early treatment increases the cost of treatment.
- Growth prediction is not always reliable.



We are going to discuss.....

1-Habits.



2-Space
maintainers



EFFECTS OF HABITS.....

A habit eg: finger sucking OR pen biting.

Thumb sucking results in:

- Maxillary incisors are tipped labially.
- Mandibular incisors are tipped lingually.
- Eruption of some incisors is impeded.
- Overjet increases.
- Overbite decreases.



THEREFORE 2 MALOCCLUSIONS HAPPEN DUE TO THUMB SUCKING

1– Cross bites.



2– Anterior open bites.



HABITS.....!!!

Open bite has several causes....

- 1- Normal transition as the primary teeth are replaced by the permanent teeth.
- 2- Habit (finger sucking or pen biting)
- 3- Tooth displacement by the resting soft tissue.
- 4- Skeletal problem.



HOW TO STOP THUMB SUCKING ?

1- Rewards and encouragement (hugs, toys) .

2- Give reminders e.g. place unpleasant tasting nail paint on the fingers or thumb, put a band-aid over the thumb at bedtime.

3- Offer distractions e.g. toys on a car trip.



HOW TO STOP THUMB SUCKING ORTHODONTICALLY?

- Tongue guard
- Tongue spurs



SPACE MAINTENANCE

The measures or procedures that are brought into use due to premature loss of deciduous tooth /teeth, to prevent loss of arch development.

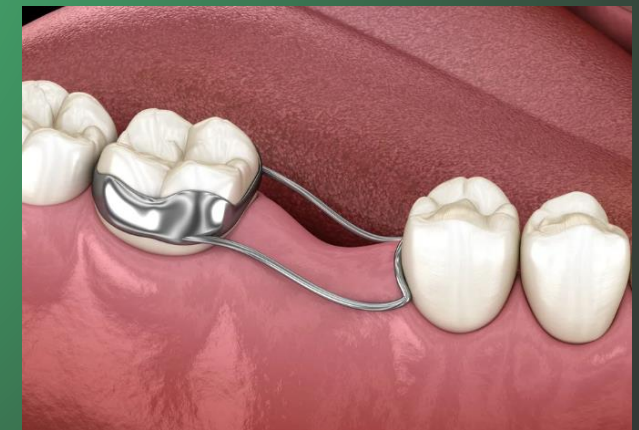
Space maintainers

Appliances that prevent loss of arch length, consequently guide the permanent tooth into correct position

IDEAL REQUIREMENTS OF SPACE MAINTAINERS



- 1– Should not interfere with eruption of permanent teeth.
- 2–Should allow physiological movement of teeth.
- 3–Should maintain the desired mesiodistal dimensions of space.
- 4–Should allow for space regainence.



SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS FIRST MOLAR

- In case of unilateral loss: Band and loop space maintainer.
- In case of bilateral loss:

In the Maxilla

- Nance palatal holding arch
- Transpalatal arch.
- Bilaterally placed band and loop space maintainers.

In the Mandible

- Lingual arch
- Bilaterally placed band and loop space maintainers.



SEQUELAE OF PREMATURE LOSS OF DECIDUOUS IST MOLAR

- If lost during eruption of permanent Ist molar.....the deciduous 2nd molar may tilt mesiallyresulting in decreased space for eruption of first premolar.
- If lost during eruption of permanent lateral incisor.....ditching of deciduous canine and sometimes leads midline shift towards the affected side.

SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS 2ND MOLAR

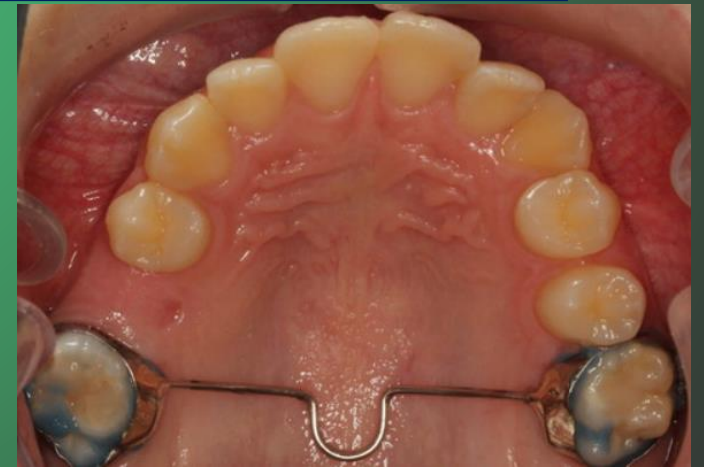
- In case of unilateral loss: Band and loop space maintainer.
- In case of bilateral loss:

In the Maxilla

- Nance palatal holding arch.
- Bilaterally placed band and loop space maintainers.
- Transpalatal arch is not indicated as both 1st permanent molars may tilt mesially.

In the Mandible

- Lingual arch



SEQUELAE OF PREMATURE LOSS OF DECIDUOUS 2ND MOLAR

1- Leads to mesial tipping of the permanent 1st molar which will affect the 2nd premolar eruption.

2- Affect the posterior segments relationships.



SPACE MAINTENANCE OF PREMATURE LOSS OF DECIDUOUS 2ND MOLARS BUT PRIOR TO ERUPTION OF PERMANENT 1ST MOLARS

This situation may lead to mesial tilting of the permanent 1st molar.

Space maintainer of choice is the “Distal shoe”



SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS INCISORS

Appliances of choice

1- Removable partial denture.



2- Bands / St.St crowns on molars onto which a wire framework is soldered on the palatal aspect combined with acrylic prosthesis.



ADVANTAGES !!

- 1- Enhance speech.
- 2- Enhance aesthetics.
- 3- Prevents mesial drifting and midline shift.
- 4- Stimulates edentulous area for eruption of permanent incisors.

Disadvantages

Removable partial dentures should be removed every 6 months so as to allow for transverse growth.



SPACE MAINTENANCE FOR PREMATURE LOSS OF DECIDUOUS CANINES

In case of Unilateral loss:

Band and loopwhere the deciduous 1st molar acts as the abutment.

In case of bilateral loss:

For Maxilla

- Nance palatal holding arch

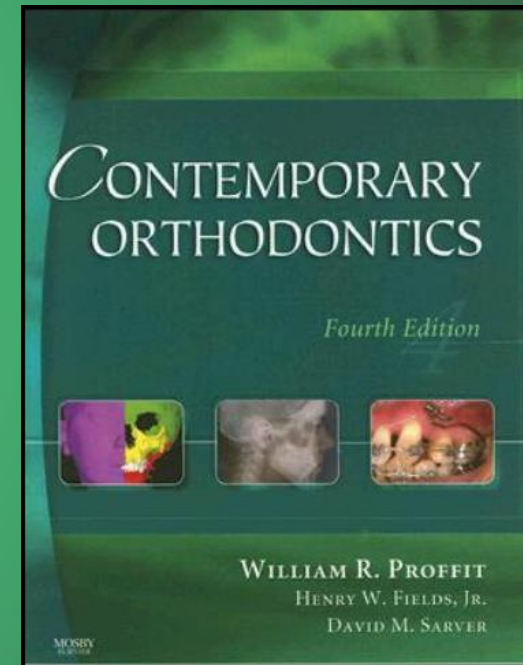
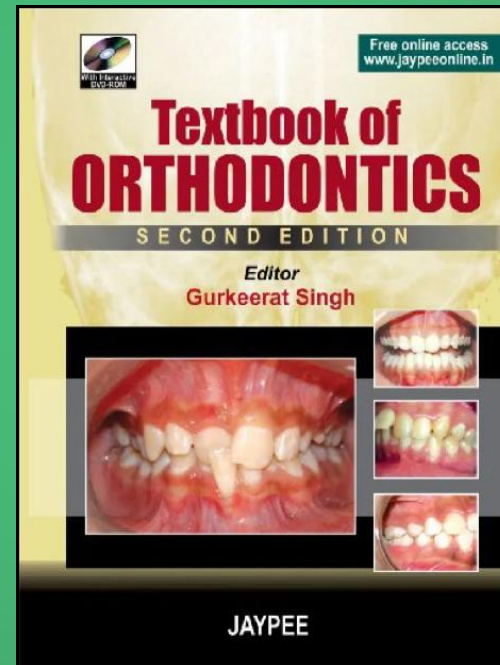
For Mandible

- Lingual arch



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THANK YOU!

